

REMARKS

Claims 17, 18, 21, 24, 25, and 31 are pending. Claim 32 has been cancelled. Claims 19, 20, 22, 23, and 26-30 have been withdrawn. No new matter has been introduced by the amendment.

CLAIM REJECTIONS UNDER 35 USC § 102

Claims 17-18 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Tsuda et al. (U.S. Patent No. 6,097,458). Claims 17-18, 24, and 32 stand rejected as being anticipated by Hayashi et al. (U.S. Patent No. 6,204, 903). Claims 17 and 18 stand rejected as being anticipated by Yamanaka et al. (U.S. 6,452,653). Applicants respectfully traverse these rejections based on the following remarks.

Notwithstanding, Applicants have elected to amend independent Claim 17 in order to more fully distinguish the present invention. Independent Claim 17 has been amended to recite a liquid crystal display device having a plurality of light reflective concave portions where each of the light reflective concave portions has a concave shape that includes a first curve and a second curve “wherein the first curve of one of two adjacent concave portions and the second curve of the other one of the adjacent concave portions are continuously connected to each other at a vertex portion, the vertex portion being formed to have an acute angle such that the inclination angle thereof is suddenly reversed, so that the entire surface of the second curve has an arc shape.” At a minimum, each of the references fails to disclose or suggest these features.

A. Rejections under Tsuda et al.

The Examiner has provided a first Figure (i.e., Figure 9F of Tsuda et al.) in the instant Office Action in which the Examiner has identified an alleged first curve and an alleged second curve as recited in independent Claim 17. Applicants respectfully disagree. As further illustrated in Figure 9F and noted in Column 11, Lines 5 -12, “portions of the glass substrate 11, which are covered with the minute semi-circular

portions 12b, [that] are not removed until the minute semi-circular portions 12b which protect those portions are completely removed. As a result...asymmetric concave portions are formed around the portions of the glass substrate 11 which are covered with the minute semi-circular portions 12b" (Emphasis Added). In other words, the asymmetric concave portions of Tsuda et al. are not formed such that an alleged first curve of a first asymmetric concave portion and an alleged second curve of a second asymmetric concave portion, adjacent to the first, are connected at a vertex point where the vertex portion is "formed to have an acute angle such that the inclination angle thereof is suddenly reversed, so that the entire surface of the second curve has an arc shape" as claimed by independent Claim 17. Therefore, for at least the reasons discussed above, Applicants respectfully submit that Tsuda et al. fails to anticipate independent Claim 17. Applicants respectfully request that the rejections against independent Claim 17 and its dependent claims be removed.

B. Rejections under Hayashi et al.

As discussed above, independent Claim 17 has been amended to recite a liquid crystal display device having a plurality of light reflective concave portions where each of the light reflective concave portions has a concave shape that includes a first curve and a second curve "wherein the first curve of one of two adjacent concave portions and the second curve of the other one of the adjacent concave portions are continuously connected to each other at a vertex portion, the vertex portion being formed to have an acute angle such that the inclination angle thereof is suddenly reversed, so that the entire surface of the second curve has an arc shape."

The Examiner has provided a second Figure (i.e., Figure 5 of Hayashi et al.) in the instant Office Action in which the Examiner has identified an alleged first curve and an alleged second curve as called for by independent Claim 17. Applicants respectfully disagree. As depicted in Figure 5 of Hayashi et al., the depressions (i.e. the alleged light reflective concave portions) lack the features mentioned above. In fact, the depressions of

Hayashi et al. utilize rounded apexes and therefore fail to disclose a "vertex portion being formed to have an acute angle such that the inclination angle thereof is suddenly reversed, so that the entire surface of the second curve has an arc shape" as recited in independent Claim 17. Therefore, for at least the reasons discussed above, Applicants respectfully submit that Hayashi et al. fails to anticipate independent Claim 17. Applicants respectfully request that the rejections against independent Claim 17 and its dependent claims be removed.

C. Rejections under Yamanaka et al.

Like Tsuda et al. and Hayashi et al., Applicants respectfully submit that Yamanaka et al. also fails to teach or suggest a liquid crystal display device having a plurality of light reflective concave portions where each of the light reflective concave portions has a concave shape that includes a first curve and a second curve "wherein the first curve of one of two adjacent concave portions and the second curve of the other one of the adjacent concave portions are continuously connected to each other at a vertex portion, the vertex portion being formed to have an acute angle such that the inclination angle thereof is suddenly reversed, so that the entire surface of the second curve has an arc shape."

The Examiner has provided a third and fourth Figures (i.e., Figures 14E and 14F of Yamanaka et al.) in the instant Office Action in which the Examiner has identified an alleged first curve and an alleged second curve as called for by independent Claim 17. Applicants respectfully disagree.

Similar to the references discussed above, Yamanaka et al. fails to teach or suggest a "vertex portion being formed to have an acute angle such that the inclination angle thereof is suddenly reversed, so that the entire surface of the second curve has an arc shape." In contrast, as illustrated in Figure 14F and summarized in Column 27, Lines 50-60, "projecting portions 44 composing the projecting and depressed structures each having an asymmetric cross-sectional configuration...the irradiated portions undergo a

lower degree of thermal degradation so that the edge portions of the irradiated portions are slightly rounded...the regions unirradiated with deep UV undergo a higher degree of thermal deformation so that inclined surfaces having smoothly curved configurations are formed.

Therefore, for at least the reasons discussed above, Applicants respectfully submit that Yamanaka et al. fails to anticipate independent Claim 17. Applicants respectfully request that the rejections against independent Claim 17 and its dependent claim be removed.

CLAIM REJECTIONS UNDER 35 USC § 103

Claims 17, 21, and 25 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Sasaki et al. (U.S. Patent No. 6,130,736) in view of Tsuda et al. (U.S. Patent No. 6,097,458). Claims 17, 21, and 25 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Sasaki et al. (U.S. Patent No. 6,130,736) in view of Hayashi et al. (U.S. Patent No. 6,204,903). Claims 17, 21, and 25 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Sasaki et al. (U.S. Patent No. 6,130,736) in view of Yamanaka et al. (U.S. Patent No. 6,452,653). Applicants respectfully traverse these rejections based on the following remarks.

A. Rejections under Sasaki et al. in view of Tsuda et al.

Applicants note that each of the dependent Claims 21 and 25 depends from independent Claim 17 which defines over the Tsuda et al. as discussed in detail above. Furthermore, as conceded by the Examiner, Sasaki et al. fails to remedy the shortcomings of Tsuda et al. As such, Applicants respectfully submit that neither reference, alone or in combination, teaches all the features of the Claims. Therefore, reconsideration and withdrawal of these rejections is respectfully requested.

B. Rejections under Sasaki et al. in view of Hayashi et al.

Applicants note that each of the dependent Claims 21 and 25 depends from independent Claim 17 which defines over the Hayashi et al. as discussed in detail above. Furthermore, as conceded by the Examiner, Sasaki et al. fails to remedy the shortcomings of Hayashi et al. As such, Applicants respectfully submit that neither reference, alone or in combination, teaches all the features of the Claims. Therefore, reconsideration and withdrawal of these rejections is respectfully requested.

C. Rejections under Sasaki et al. in view of Yamanaka et al.

Applicants note that each of the dependent Claims 21 and 25 depends from independent Claim 17 which defines over the Yamanaka et al. as discussed in detail above. Furthermore, as conceded by the Examiner, Sasaki et al. fails to remedy the shortcomings of Yamanaka et al. As such, Applicants respectfully submit that neither reference, alone or in combination, teaches all the features of the Claims. Therefore, reconsideration and withdrawal of these rejections is respectfully requested.

Application No. 10/668,929

Amendment in Response to Office Action Mailed April 28, 2008

CONCLUSION

Based on the above remarks, Applicants respectfully submit that the claims are in condition for allowance. The Examiner is kindly invited to contact the undersigned attorney to expedite allowance.

Respectfully submitted,

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